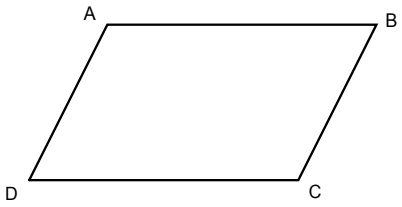
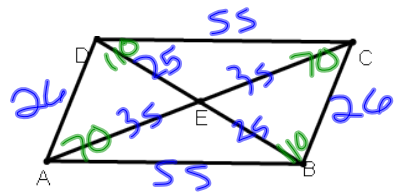
6.2 Parallelograms

Parallelogram--A quadrilateral with both pairs of opposite sides parallel.



1.



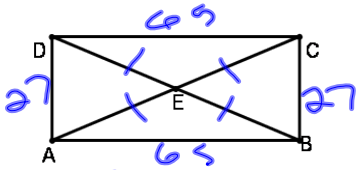
AD = 26 BC = 26 DC = 55 AB = 55

AE = 35 EC = 35 DE = 25 EB = 25

m∠ABC = 110° m∠BCD = 70°

m∠ADC = 110° m∠BAD = 70°

2.

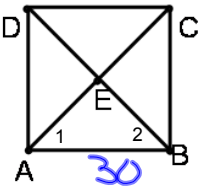


AD = 27 BC = 27 DC = 65 AB = 65

AE = 35 EC = 35 DE = 35 EB = 35

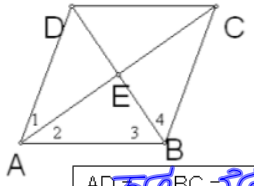
m∠ABC = 90° m∠BCD = 90°

m∠ADC = 90° m∠BAD = 90°

3. 

30

AD = 30 BC = 30 DC = 30 AB = 30	
AE = 21 EC = 21 DE = 21 EB = 21	
m∠ABC 90°	m∠BCD = 90°
m∠ADC = 90°	m∠BAD = 90°
m∠1 = 45°	m∠2 = 45°

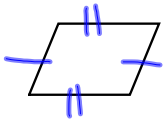
4. 

AD = 36 BC = 36 DC = 36 AB = 36	
AE = 30 EC = 30 DE = 21 EB = 21	
m∠ABC = 110°	m∠BCD = 70°
m∠ADC = 110°	m∠BAD = 70°
m∠3 = 55° m∠4 = 55°	m∠1 = 35° m∠2 = 35°

Conclusions

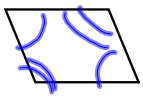
1. What can you conclude about the opposite sides of a parallelogram?

The opposite sides of a parallelogram are ≅ **.** (Thm 6.2)



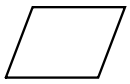
2. What can you conclude about the opposite angles of a parallelogram?

The opposite angles of a parallelogram are ≅ **.** (Thm 6.3)



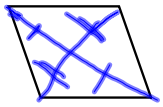
3. What can you conclude about the consecutive angles of a parallelogram?

The consecutive angles of a parallelogram are Supplementary. (Thm 6.4)
(compare m∠ABC & m∠BCD)



4. What can you conclude about the diagonals of a parallelogram?

The diagonals of a parallelogram bisect each other. (Thm 6.5)



5. What type of shape is #2? Rectangle

6. What type of shape is #3? Square

7. What type of shape is #4? Rhombus

Open to p313
Look at 1-12
together

HW
p313-314
13-33